

AI for Teachers: Demystifying AI in Schools

Contents

1

The Rise of AI in Education? Research Report on Teacher Usage, Teacher Wishes and Teacher Concerns

7

What Teachers Need to be Aware of when Using AI

8

AI in Schools

10

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The Rise of AI in Education?

Research Report on Teacher Usage, Teacher Wishes and Teacher Concerns

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Key takeaways

- Around 20% of teachers have been using AI tools to help with school work; only half that number have used ChatGPT specifically.
- There is an apparent gender divide, with male teachers more likely than female teachers to have used AI tools, and also more female teachers citing a lack of confidence in learning about AI as a concern.
- Private school teachers are more likely to have used AI for school work than state school teachers.
- Maths teachers aren't using ChatGPT; about half as many maths teachers are using other AI tools in school compared with other subject teachers.
- The top three perceived future uses of AI for teachers were:
 - creating lesson content, such as model answers or personalised learning
 - analysing attainment data
 - creating lesson plans.
- Teachers most commonly said they could see themselves using AI to create:
 - practice questions
 - model answers
 - personalised content (at secondary) or prompts for creative activities (at primary).
- Only 4% have no concerns about using AI; almost 60% are worried about plagiarism and the reliability of information. There is still a lot of concern that using AI won't save teachers any time.
- More knowledge and training about using AI would encourage teachers to use it in school, but currently there is very little 'official' guidance given; if teachers are finding information it is usually informal and self-procured.
- Around 25% of teachers think their school is unlikely to adopt any kind of AI technology.

This year has seen a lot of media discussion about generative artificial intelligence (AI). Following increasing accessibility to large language models (LLMs) such as ChatGPT, we wondered if and how teachers are making use of them. Using Teacher Tapp's platform, we asked a series of questions to over 8,000 teachers in England, investigating current behaviours with AI, and what teachers would like to be using it for – if they could see themselves using it at all.

The questions were asked in three instalments on the Teacher Tapp app, at the beginning of March, April and May 2023.

Main findings

Almost 20% of teachers are using AI for school work

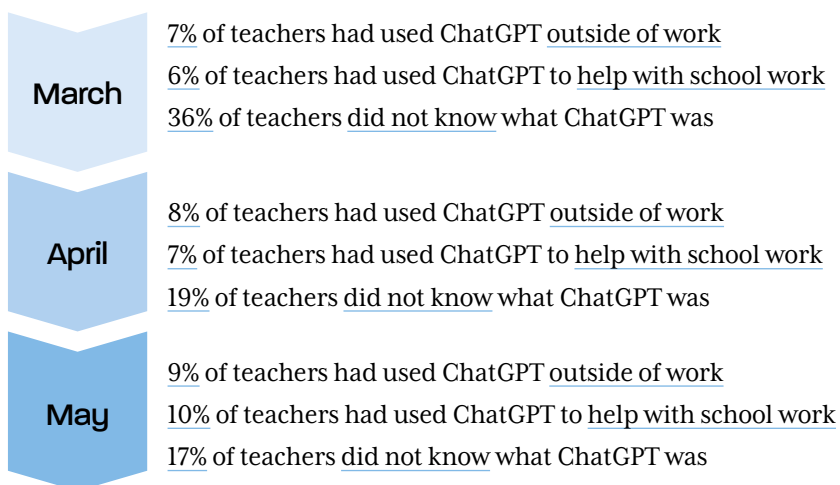
On 3rd March, 3rd April and again on 3rd May 2023, we asked 'In the past week, have you used ChatGPT?' intending to track any changes in prevalence of usage during that time. We found that there has been a slight increase in the percentage of teachers who say they have used ChatGPT 'in the past week' between March and May. By May, 10% of teachers said they had used it to help with school work, compared with 6% in March. Similarly, 17% of teachers said they did not know what ChatGPT was in May; down 2% compared with April.

Teachers with less experience were more likely to have used ChatGPT than those with greater experience. 12% of teachers with less than five years' experience said they'd used it to help with school work, compared with only 6% of those with more than 20 years' experience.

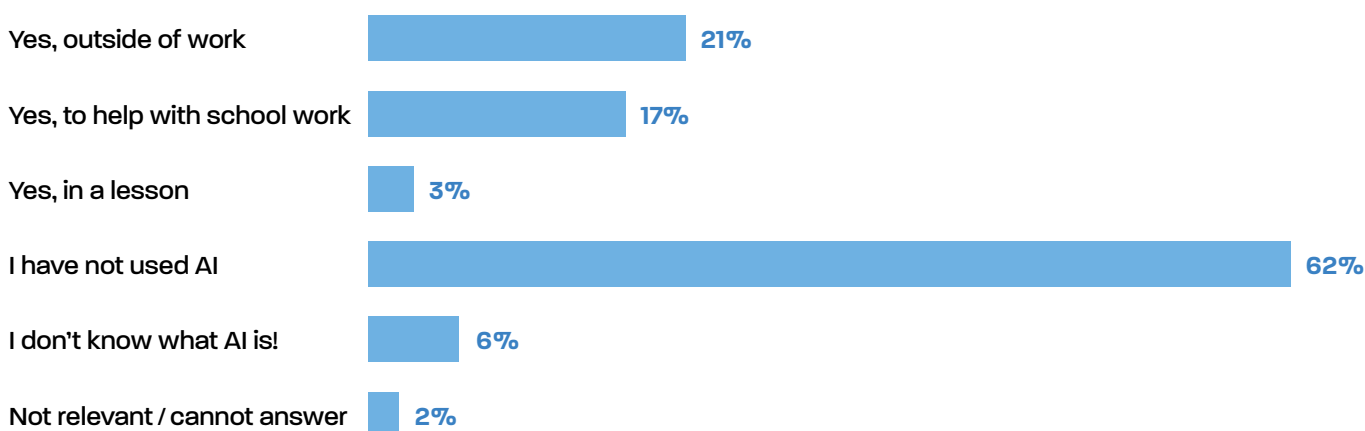
Only 10% of teachers said they had used ChatGPT to help with school work.

The percentage of teachers who have used AI tools does increase when not focused solely on ChatGPT. However, a high proportion (62%) still report that they have not used AI or do not know what AI is (6%). Because of this, we suspect there may be a lack of awareness of different types of AI or a dissociation between AI and machine learning software. Machine learning AI is very prevalent in a lot of everyday technology, including many education productions such as Duolingo and Century Tech; even simply the Google search engine. Are respondents considering only generative AI, such as ChatGPT and DALL-E?

Are teachers using ChatGPT?



Have you ever used any AI tools? (e.g. ChatGPT, DALL-E, other machine learning)



Question answered by 8,562 teachers on 03/04/2023 (results weighted to reflect national teacher and school demographics)

21% of female teachers said they did not know what ChatGPT was, compared with only 6% of male teachers.

Is there a gender divide?

These questions also highlighted demographic differences. For instance, there is a significant gender divide when looking at AI usage and the concerns over using it, which doesn't appear to be explained by other factors, such as the subject choices of respondents.

The percentage of male teachers who had used ChatGPT in the past week, both inside and outside of work, was roughly three times higher than the percentage of female teachers.

Similarly, the percentage of male teachers who had never heard of ChatGPT was much lower than the percentage of female teachers (20% of male teachers vs 42% of female teachers).

Male teachers are also more likely to investigate AI technology for themselves, with 40% saying their knowledge so far was self-taught, compared with 22% of female teachers. This is possibly linked to a lack of confidence or available time for learning how to use AI, which was cited by 17% and 27% of female respondents respectively as an area of concern. When asked the same question, only 9% of male respondents cited lack of confidence and 20% cited lack of time as concerns. However, similar proportions of male (37%) and female (33%) felt it was too early to tell if AI would help or hinder them in their jobs.

Private school teachers are more likely to have used AI for school work than state school teachers

There is also a stark difference between the proportion of private and state-funded school teachers who have used ChatGPT to help with school work recently. Use in private schools was almost double that of state school respondents,

with 10% of teachers using AI in private schools and only 6% in state schools in May. The difference between those from private or state schools reporting to have used ChatGPT outside of school was even larger (13% in private schools and only 6% in state schools). While not confirmed, it's possible that awareness of AI technology could be a contributing factor to these differences. We found that the percentage of teachers who had never heard of ChatGPT was also far lower in private school teachers than in state school teachers.

In both state-funded and private schools, usage of ChatGPT to help with school work was more common in secondary than in primary. However, the proportion of private school teachers using ChatGPT outside of work

was relatively consistent across both phases of education (14% in primary and 13% in secondary). This differed from state school results, where 7% of secondary teachers used ChatGPT outside of work, compared with only 4% of primary teachers.

These trends continue when looking at support and guidance on using AI. Private school teachers were more likely to report that they had received information about using AI technologies in school, either from school leaders or their school IT teams. Private school teachers therefore appear to feel much better informed than state school teachers, which may be connected to the amount of time they have for CPD or access to funding if the school is paying for training.

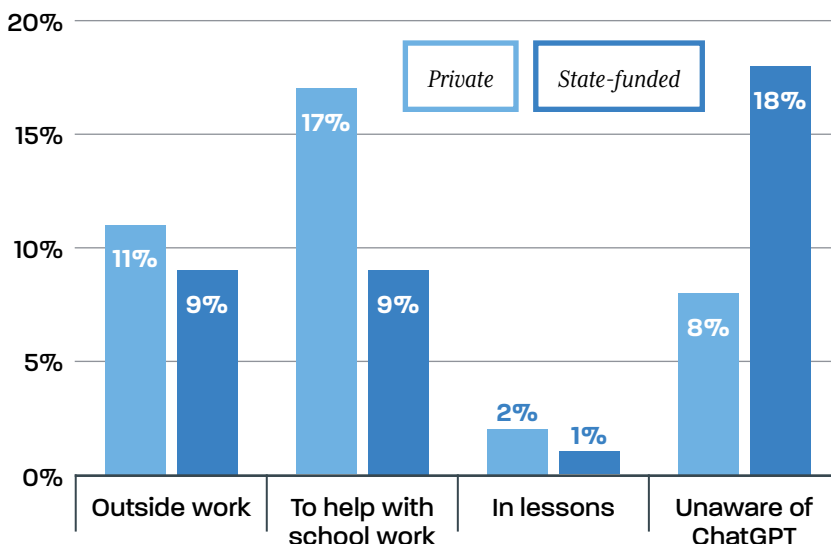
Far fewer Maths teachers are using AI in school than other subject teachers

Maths saw the lowest uptake of ChatGPT among its teachers, with only 4% saying they'd used ChatGPT and just 11% saying they'd used any AI tools at work at all, compared with an average of 25% across other secondary subjects, the highest uptake being in Science and 'Other incl. PE' (which would include computing). The low uptake of ChatGPT in Maths is not wholly surprising given that ChatGPT is an LLM, and Maths is a numerate subject. However, low reported uptake of other AI tools in Maths could further indicate that teachers were only considering generative AI when answering these questions, as Maths easily lends itself to machine learning or algorithm-based software, such as personalised testing and automarking. Without investigation, it's impossible to say whether this low uptake is an accurate reflection of AI usage in Maths.

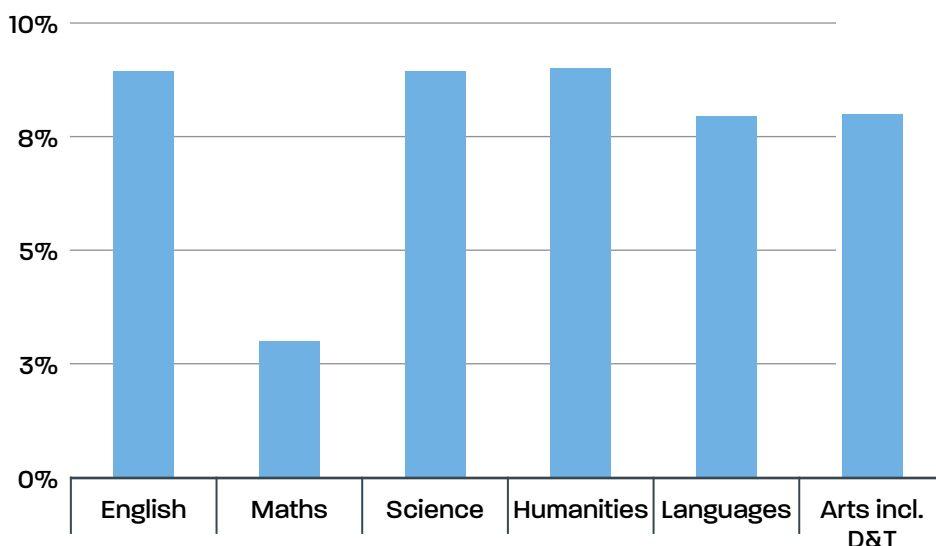
Maths teachers also appeared more sceptical of the uses of AI compared with teachers of other subjects, with a higher proportion of them (37%) answering 'none of the above' when asked about what types of content they could see themselves using AI to create. Around the same percentage of Early Years/KSI respondents also answered 'none of the above'. Again, this could be due to the type of content they are expecting to create or the exact tools they are thinking about when answering the questions. Although ChatGPT might not lend itself well to Maths content,

How does AI usage differ between teachers from private schools vs state-funded schools?*

**Data collected from our May survey*



March: Differences in ChatGPT usage by subject



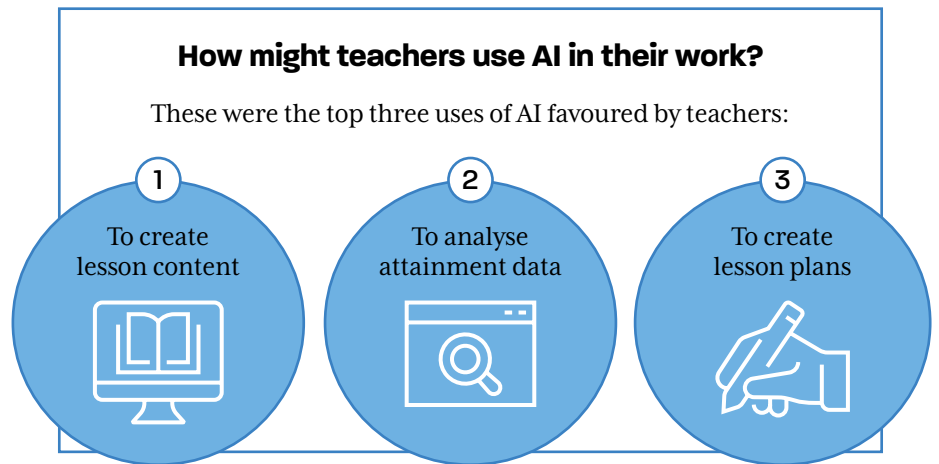
Question answered by 8,438 teachers on 03/03/2023 (results weighted to reflect national teacher and school demographics)

ther machine learning tools could. Similarly, Early Years and KS1 teachers might be less likely to use digital tools with their learners, and thus have fewer opportunities to use machine learning tools with them, though generative AI could support them with activity prompts.

Teachers see potential for using AI to support lesson content creation...

Teachers had a range of views on what AI could help with. The most popular response among teachers was about the lesson content it could help produce, with 42% of teachers (including 48% of secondary teachers) saying that AI could help with this. Around 32% of respondents saw a use for analysing attainment data and 31% also believe that it could help with lesson planning.

These last two options differed slightly depending on which phase the respondent worked in. A higher proportion of primary teachers saw themselves using AI for lesson planning than analysing attainment data, and vice versa for secondary teachers. Secondary also saw a greater response across the range of options, though this might align with the type of work their students are doing. For instance, typically a secondary teacher has more marking to do than a teacher at primary level, hence the greater preference for help with marking among secondary teachers.



... But AI generated content needs checking. It's good as a starting point

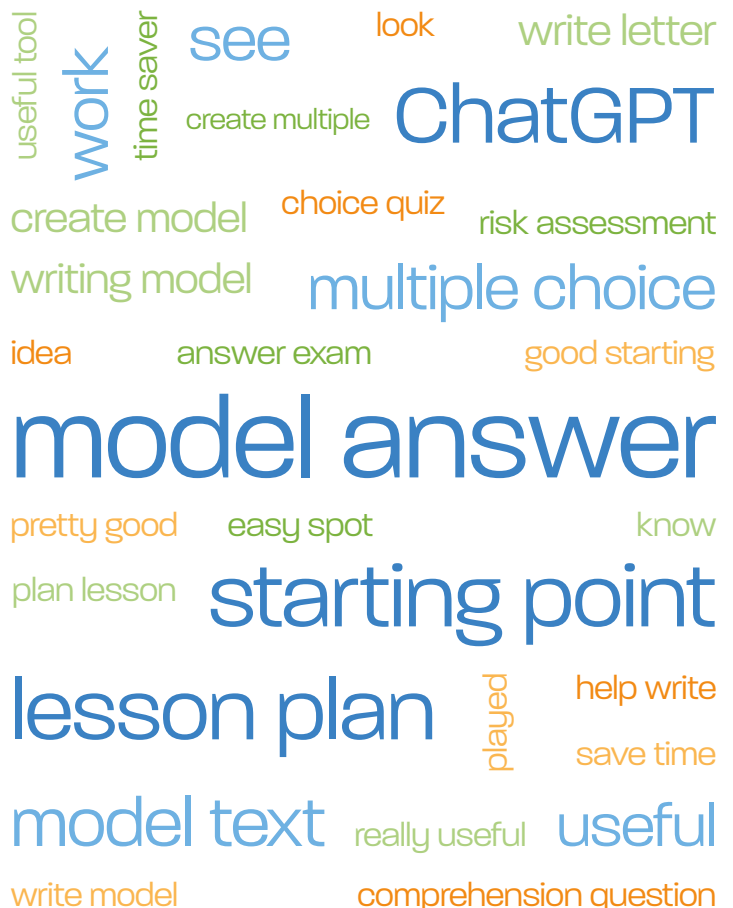
As lesson content was the most popular response, we asked 550 teachers who have used AI about their experiences. In an open response format, many shared how they had used AI to create model answers and texts, but cautioned that the output needed to be adapted to suit their needs. "I've used Chat GPT to write the basis of model texts I then adapted to ensure they were appropriate. The AI was good at including most features I asked it to. The children benefited from learning from more model texts."

We don't know yet how much or how soon AI tools will improve, or if content creators will always need to use AI-generated content as a starting point only.

Around half of all teachers can see themselves using AI to help create model answers and practice questions or quizzes

Around 50% of teachers could see themselves using AI to create practice questions; and 46% would use AI to create model answers. Priorities between primary and secondary teachers are similar, although more secondary teachers than primary teachers said they could foresee AI helping with personalised content and testing (29% vs. 24%) and providing opportunities for students to interact with AI tech (20% vs. 13%).

Tell us about your experience using AI tools



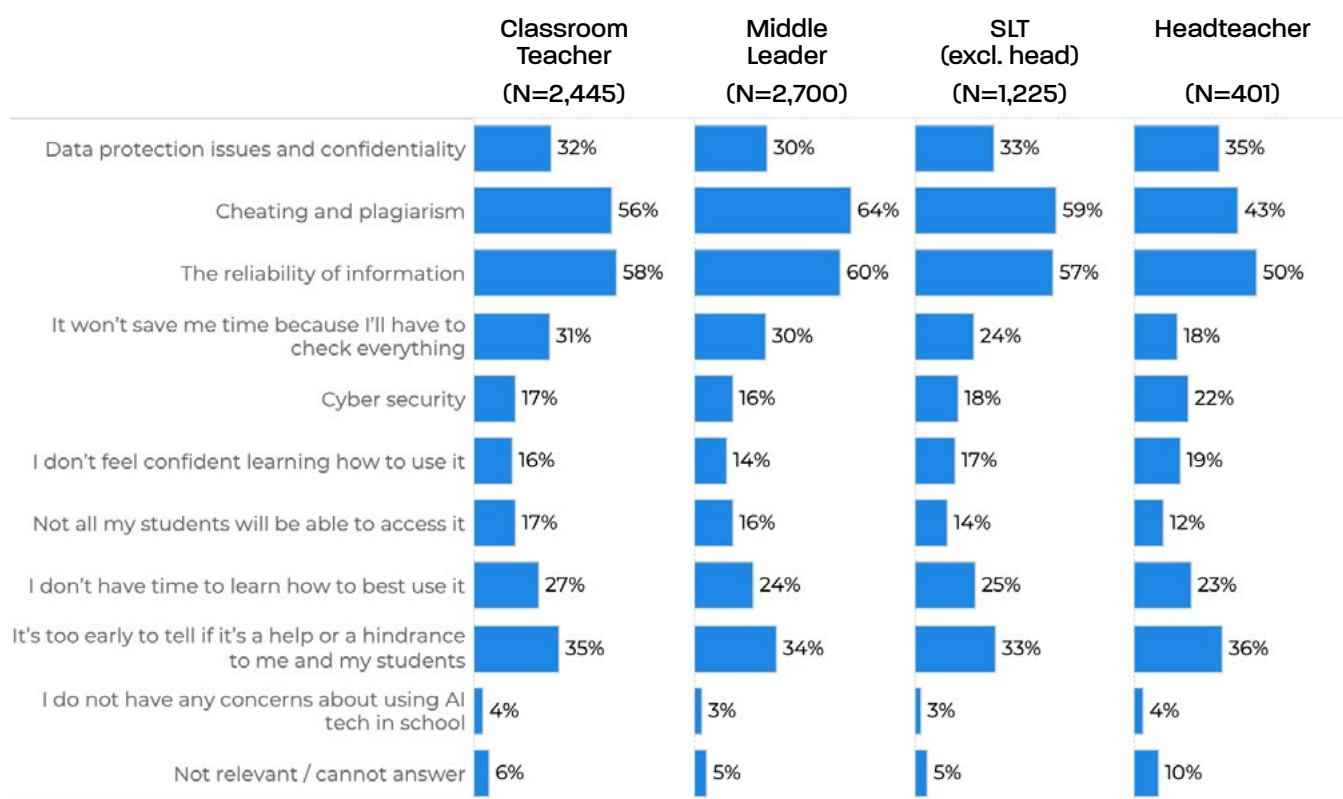
Almost all teachers have some concerns about using AI, including worries about cheating and plagiarism and disbelief that AI will lead to workload reduction

Of all respondents, only 4% answered that they had no concerns at all about using AI. The most common concern cited was regarding cheating and plagiarism (59%), whilst 58% of teachers worried about the reliability of information when using AI. Headteachers were more concerned than classroom teachers about the cyber security element of AI (22% vs. 17%), and around 30% of all respondents were concerned about data protection issues and confidentiality.

59%
of teachers said that **cheating and plagiarism** concerned them most about using AI.

Several concerns can be grouped within the theme of teacher workload reduction or the lack thereof. It appears that the idea that using AI or learning to use AI might actually be more time consuming than current practice. When asked about these concerns, 25% didn't think they'd have time to learn to use it, 29% didn't think it would save time because they'd have to check it, and 34% thought it was too early to tell if it will be a help or a hindrance.

What concerns you most about using AI technologies in school?



Question answered by 6,801 teachers on 03/05/2023 (results weighted to reflect national teacher and school demographics)

Teachers are not receiving enough guidance to give them confidence in using AI; most information is from informal sources and self-procured

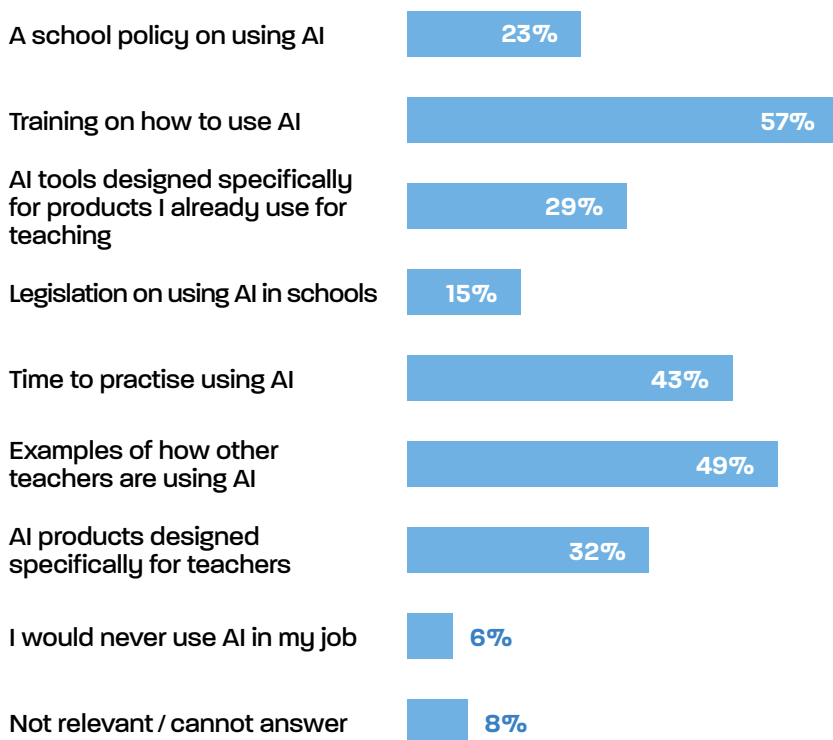
Almost half (45%) of respondents answered that they had not received any information about using AI in school. Those who had received information were mostly self-taught (26%) or had received their information from a blog, article or podcast (26%). Overall, just 9% of teachers had received information from their school leaders.

As such, teachers don't seem to be receiving any kind of 'official' guidance. As discussed earlier, of those teachers that had received guidance, they were far more likely to work in a private school. Close to half of those working in state-funded schools said they hadn't received any guidance on using AI in school; this dropped to less than 25% for private school teachers.

More knowledge and understanding would encourage teachers to use AI in school

We asked teachers what would encourage them to use AI in their work. The most popular answers to this question were centred around the theme of gaining knowledge about AI. High percentages of teachers said that training, time to practise and examples of how other teachers are using AI would encourage them to use it in their work. Only 6% of teachers said that they would never use AI in their jobs.

What, if anything, would encourage you to use AI to support your work in school?



Question answered by 6,708 teachers on 03/05/2023 (results weighted to reflect national teacher and school demographics)

Around 25% of teachers think their school is unlikely to adopt any kind of AI technology (30% primary; 22% secondary)

This percentage is fairly consistent amongst the respondents, with the odd outliers for groups such as Early Years and KS1 teachers (35%), where we might expect the students to interact less with technology directly. However, this still seems a high proportion, given how prevalent machine learning is already in our day-to-day lives. There are many costs associated with embedding a new technology into a school – funding and teacher workload in particular, but also lack of guidance – that might seem too significant as barriers for most teachers across the profession, making AI tools inaccessible for some schools.

1/4
of teachers think their school is unlikely to adopt any AI technology.

Conclusions – the rise of AI in education?

We have tracked a very small rise in the prevalence of ChatGPT, though nothing of particular significance when looking at the general usage of AI tools. Only around 20% of teachers in England report to be using AI tools to support their work in school, and our findings show that this is heavily influenced by factors such as phase of education, type of school and even the gender of the teacher. There are a number of reasons for this, including:

- low confidence in learning to use AI tools
- lack of knowledge/guidance, paired with lack of time given for teachers to learn new tech
- negative expectations over the promise of workload reduction
- limited funding, as suggested by the difference in usage between private and state-funded schools
- some concerns over reliability and users abusing the tech, for example, for cheating and plagiarism.

However, our findings also demonstrated a lot of willingness to use AI in schools. If a teacher were given proper training on how to use a particular tool, it was proven to reduce their workload and if the tool was well-funded, they may well start using it regularly to help with their creation of lesson content or analysing student attainment data. There is the possibility of a significant rise of AI in education, but only if teachers are properly supported in using the technology effectively and their concerns around using AI have evidenced, practical and reliable solutions. Ideally more official, top down and practical guidance needs to be distributed to schools, and teachers need time to learn and practise with these new tools.

What Teachers Need to be Aware of when Using AI

Andrew Lifford is the Casework and Subscriptions Manager at Edapt. Edapt supports school staff in England and Wales with individual employment disputes and allegations. It is the largest teaching union alternative in England and Wales. It is apolitical, independent and does not participate in political lobbying or strike action.



Andrew Lifford



What is generative AI?

Generative AI refers to technology that can be used to create new content based on large volumes of data that models have been trained on. This content can include audio, code, images, text, simulations and videos.

The use of AI in schools and the impact it will have on teachers and pupils is something which the education sector is slowly coming to terms with. There are many benefits of using AI but its application in schools also comes with significant risks. Edapt understands that [exam maladministration](#) and the ways in which generative AI tools use pupil data could be central risks for teachers. Other unforeseen concerns are also likely to arise as we move forward.



AI in schools: three key things to be aware of

Generative AI stores and learns from data inputted to it, so personal and sensitive data must not be entered into generative AI tools and any data entered should be considered released to the internet.

All staff in the education sector should be aware that generative AI can create believable content of all kinds. This includes, for example, more credible scam emails requesting payment.

While the potential for student AI misuse is new, most of the ways to prevent its misuse and mitigate the associated risks are not; centres will already have established measures in place to ensure that students are aware of the importance of submitting their own independent work for assessment and for identifying potential malpractice.



AI in schools: avoiding risks to teachers

Always read and adhere to your school's ICT and computing policies, safeguarding policies and data protection policies.

If you are an Edapt subscriber and an allegation of AI misuse is made against you in your role you can [contact us](#) for further support and advice.

Edapt's tips are taken from the Department for Education's (DfE) guidance on [generative artificial intelligence in education](#) and from the Joint Council for Qualifications' (JCQ) guidance on [protecting the integrity of qualifications](#).

[Read Edapt's full support article](#) outlining guidance and advice on generative AI in education and the potential risks for teachers using it in the classroom.



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AI in Schools

Autumn 2023
– date TBC

Byte-sized EdTech research

Creating the Golden Triangle of Evidence-Informed EdTech

Fig. 1 - The EDUCATE Golden Triangle of Evidence-Informed EdTech

The combination of all three points leads to:

- Improved learning
- More effective teaching
- Greater research impact
 - Increased sales

How is **research evidence** relevant to me? How can I find out what **teachers and learners** think of my product, and test its **efficacy**?



EdTech

How can I better communicate my **research** to teachers and companies? How can I demonstrate its **impact**?



Academia



Education

How can I find out what **works** when using technology to support learning? How can I use **research evidence**?

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Scan the QR code to read the research in full.

AI CPD FOR SCHOOLS

Exploring the potential of AI for teaching and learning

We offer a range of professional development workshops, face to face training sessions and webinars designed to help school leaders and teachers to leverage AI to achieve school priorities and develop an effective AI strategy.

AI & digital strategy development

Augmenting teaching with AI

Intro to AI in schools



AI reality check - should I be worried about ChatGPT?

AI & personalised learning

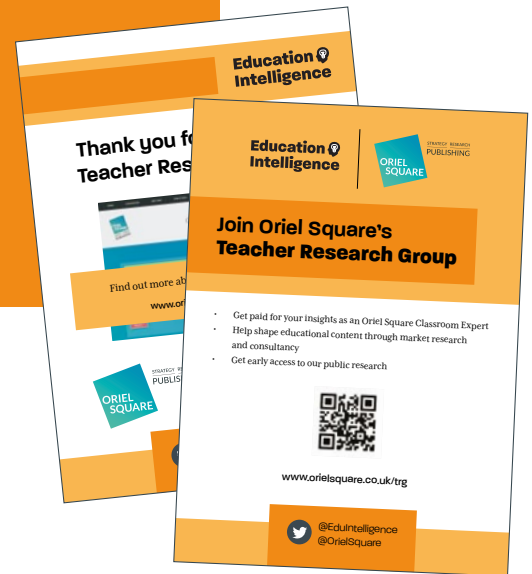
Equity and inclusion through AI

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